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[22] Applicant: Lin Dian-hol
Address: Metalwork/Log
shop, the First
Machine Repair Shop of
Xinyu Street Factory,
Jiangxi Province,
China

[74] Patent Agency:

Jiangxi Patent Service

Tentative

Patent Agent: Ma Xiang-
long

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[72] Inventor:

Lin Dian-hol

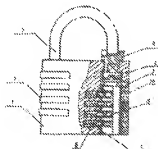
Description: 2 pages
Accompanying Drawings: 1
pages

[60] Title of Utility Model:

Combination padlock

[63] Abstract:

This utility model relates to a combination padlock, which can be unlocked either by a combination code or by a key. Part of this lock is configured as a combination control structure, and the other part is configured as a key and control structure, it is characterized in that the upper part of the lock cylinder is fitted with a specific rotating pin and an opening cylinder pin. This padlock combines the advantages of a key lock and a



combination lock; normally it is unlocked by a key, and if the key is not available or lost, the lock can be unlocked by other means, therefore, not only does it save the user's time, but it also avoids the trouble caused to the user if the key is lost, moreover it well effectively achieves the effect of prolonging the machine's service life.

Claims

1. Locking padlock which can be unlocked either by a combination code or by a key, comprising a lock body 1, a cam 2, a cylinder 3, a cone cylinder 4, a spring 5, a cam pin 6 and 7 and a block 10, characterized in that in a groove on the upper section of the lock cylinder 3 a matching pin 7 is fitted, and the upper end of the lock cylinder 3 is fitted with a matching pin 6 and an opening-cylinder 8.

2. Locking padlock according to claim 1, characterized in that a smaller end of the opening-cylinder 8 is machined with a square hole, and a bigger end thereof with a U-shaped open groove.

3. Locking padlock according to claim 1, characterized in that a smaller end of the opening-cylinder pin 6 is machined with a thread, and a bigger end thereof is a machined square hole.

Description

Combination Padlock

This utility model relates to a combination padlock, as it is to be unlocked either by a combination code or by a key.

As is well known, the main types of padlocks include pin tumbler locks and combination locks, and there are also security locks which combine the functions of pin tumbler locks and combination locks. The pin tumbler lock is convenient to lock and unlock and the combination lock is simple, but at times a user will often forget or lose the key to the lock cannot be unlocked as it has no key designed for it although the problem does not arise with combination locks. These are undesirable to use and take more time.

An object of this utility model is to overcome the weakness of both the pin tumbler locks and the combination locks, to combine the advantages of both types of locks and to provide a novel convenient padlock which can be unlocked either by a combination code or by a key.

The work of this utility model is accomplished as follows. One half of the lock is fitted with a combination code cylinder and the other half with a key pin tumbler assembly, which is composed of a lock body, a code disc, a tumbler, a key cylinder, a key pin, a key pin and a block. It is characterized in that a groove on the upper section of the lock cylinder is fitted with a pin, and its upper end is fitted with a specific matching pin and an opening cylinder pin.

The sliding model combines the advantages of both a top-down and a bottom-up model. In a sliding model, normally, an ID is not taken by a user. If the key is not available or lost, it can be replaced by a combination, therefore, not only does it avoid the inertia time, but it also avoids the liability of the user. If the key is lost, however, it could be replaced by either of reprogramming the user's access card.

A more detailed description of this utility model is given hereinafter with reference to the accompanying drawings and explanations.

Fig. 1 is a front view of the opening-closing part 3 shown in Fig. 2.

[illegible]

Fig. 4. The calculated relative difference between the calculated and experimental values of the relative rate of the initial reaction.

1. *Journal of the American Medical Association*, 1977; 237: 1001-1002.

Drawings Accompanying the Description

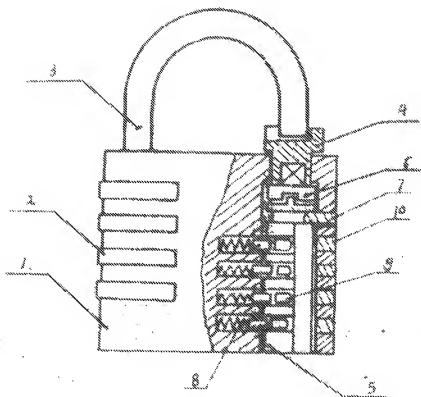


Fig. 1



Fig. 2



Fig. 3

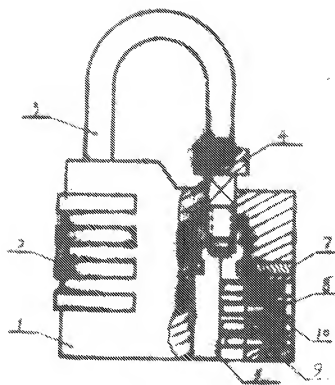


Fig. 4

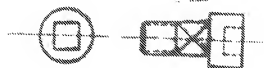


Fig. 5

Fig. 6